

Detailed Action

This action is responsive to the communication filed on 3/23/2011.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Rickenbrode on 7/25/2011; the authorized amendments are stated below:

2. In claim 1, lines 1 and 2 change the following wording:

"a noiseless wireless communication channel" to

---a wireless communication channel---

3. In claim 1, line 7 change the following wording:

"perfectly reconstructing the received signal" to

---reconstructing the received signal---

4. Replace claim 28 with the following:

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28. A non-transitory computer-readable medium on which is recorded a control program for a data processor, the computer-readable medium comprising instructions for causing the data processor to:
- sample a signal ($y(t)$) sent over a wireless communication channel with a sampling frequency (f_s) lower than the sampling frequency given by the Shannon theorem, lower than the chip rate ($1/T_c$) of said signal ($y(t)$), but greater than the rate of innovation (ρ) of said signal ($y(t)$), for generating a set of sampled values ($y(nT_s)$) and
- reconstruct the received signal ($y(t)$) using the set of sampled values ($y(nT_s)$).
5. In claim 34, lines 1 and 2 change the following wording:
- “a noiseless wireless communication channel” to
- a wireless communication channel---**
6. In claim 34, lines 6 and 7 change the following wording:
- “perfectly reconstruct the received signal” to
- reconstruct the received signal---**
7. In claim 61, lines 2 and 3 change the following wording:
- “a noiseless wireless communication channel” to
- a wireless communication channel---**

8. In claim 61, lines 8 and 9 change the following wording:
“perfectly reconstructing the received signal” to
---reconstructing the received signal---
9. Replace claim 62 with the following:
62. A mobile station for wireless communication, comprising:
at least one antenna; and
a receiver configured to receive a signal $(y(t))$ over a wireless communication channel via the at least one antenna, and sample the signal $(y(t))$ with a sampling frequency (f_s) lower than the sampling frequency given by the Shannon theorem, lower than the chip rate $(1/T_c)$ of said received signal $(y(t))$, but greater than the rate of innovation (ρ) of said received signal $(y(t))$, for generating a set of sampled values $(y(nT_s))$ and to reconstruct the received signal $(y(t))$ using the set of sampled values $(y(nT_s))$.
10. In claim 64, lines 1 and 2 change the following wording:
“a noiseless wireless communication channel” to
---a wireless communication channel---
11. In claim 64, in both line 7 and line 8 change the following wording:
“perfectly reconstructing” to

---reconstructing---

12. In claim 65, lines 1 and 2 change the following wording:

“a noiseless wireless communication channel” to

---a wireless communication channel---

13. In claim 65, in both line 9 and line 10 change the following wording:

“perfectly reconstructing” to

---reconstructing---

14. In claim 66, lines 1 and 2 change the following wording:

“a noiseless wireless communication channel” to

---a wireless communication channel---

15. In claim 66, in both line 7 and line 8 change the following wording:

“perfectly reconstructing” to

---reconstructing---

16. Cancel claims 67, 68, and 69.

Allowable Subject Matter

17. Claims 1-62, 64-66, and 70 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES M. PEREZ whose telephone number is (571)270-3231. The examiner can normally be reached on Monday through Friday: 10am to 6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Payne can be reached on 571-272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/JAMES M PEREZ/
Examiner, Art Unit 2611
7/25/2011

/David C. Payne/

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Supervisory Patent Examiner, Art Unit 2611